

U.S. Patent Application Serial No.10/524,211  
Response filed June 10, 2009  
Reply to OA dated March 10, 2009

### **REMARKS**

In the Office Action, claims 1 and 5 were rejected under 35 USC § 103(a) as being unpatentable over the previously cited '479 patent to Usui in view of the newly cited patent to Donati et al further in view of the newly cited patent to Kaplow et al. In making this rejection, it was asserted that the Usui patent teaches the entire heat-generating body as set forth in the noted claims with the exception of the use of an adhesive as claimed which is (1) a water containing hydrophilic gel agent obtained from a hydrophilic polymer thickening agent and (2) an organic filling agent.

The patent to Donati et al then was relied upon for supplying a teaching of such an adhesive which is used for application to the skin, that is, as an adhesive plaster. Further, it was acknowledged that neither of the first two cited patents teaches the important difference between the moisture value of the heat-generating portion and the adhesive portion to be 2% or less. The Kaplow et al patent is then applied to supply this teaching deficiency.

In particular, the Kaplow et al patent was alleged to teach a beef stew food product where the moisture content between the components of the food product were controlled to be close to one another to avoid moisture migration from one component to another. This alleged teaching was then applied to the combined teachings of the initially cited Usui and Donati et al patents. Reconsideration of this rejection in view of the the following comments is respectfully requested.

Before discussing the rejection in detail, a review of the presently claimed invention again may be quite instructive. Independent claim 1 relates to a heat-generating body comprising a heat-generating portion formed by sealing a heat-generating composition causing an exothermic reaction in the presence of air in an air-permeable container. The heat-generating body further includes an adhesive portion formed by comprising, as a main component, a water-containing hydrophilic gel agent obtained from a hydrophilic polymeric thickening agent. An important feature of the presently claimed invention is that a difference between moisture values of the heat-generating portion and the adhesive portion is 2% or less.

The significance of this difference in moisture values is apparent from Table 4 of the present specification. That is, when the difference between the critical moisture values is "2% or less" as in embodiments 1 to 3 of the specification, there is no transfer of moisture between the adhesive portion and the heat-generating portion, and a heat-generating body having excellent heat-generating characteristics and adhesive property can be obtained. In contrast, when the difference between the critical moisture values is 6% to 10% as in comparative Examples 1 to 3, there is transfer of moisture between the adhesive portion and the heat-generating portion, and the heat-generating characteristics and adhesive property are deteriorated. It is submitted that such a heat-generating body is not taught or suggested by the cited patent publications to Usui, Munro et al and Kaplow et al ,whether taken singly or in combination.

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As was previously submitted, neither publication of Usui or Munro et al teaches a difference between critical moisture values of 2% or less. It is considered improper to assert that one of ordinary skill would achieve the recited difference between the critical moisture values of 5% or less without such a teaching, since the teaching deficiency of the cited art could only have been supplied using a prohibited hindsight reconstruction from applicants' own disclosure that the difference between the critical moisture values is 2% or less.

The Kaplow et al patent merely discloses the invention regarding the beef stew wherein solid phase such as vegetables and liquid phase of the gravy are respectively dehydrated to the moisture content of 45 percent or less (i.e., the difference of 2% or less), and the migration of stabilizing solutes between the phases will be minimal so as to adversely imbalance the concentration of stabilizing solutes in the phases.

Among other things, the subject matter of the presently claimed invention is not the above-mentioned migration of substance equivalent to the stabilizing solutes between the liquid and solid phases. In distinct contrast, an important feature of the subject heat-generating body is that the difference between moisture values of the heat-generating portion and the adhesive portion is 2% or less and that transfer of moisture between the portions does not occur. Accordingly, the heat-generating performance as the heat-generating body or the adhesive property of the adhesive portion is not deteriorated.

Furthermore, as stated from the fourth line from the bottom of page 8 to the fourth line of page 9 in the English specification, the critical moisture value of the present invention is a value indicating relative moisture in a state in which, at a certain relative humidity, moisture in the heat-generating portion or the adhesive portion is in an equilibrium state in which no absorption or desorption of moisture occurs and, accordingly, there is no transfer of the moisture from one portion to the other. Specifically, attention is directed to paragraph number [0006] of the specification.

Consequently, it is submitted that the presently claimed invention is not suggested from the disclosure of food in Kaplow et al patent where the transfer of stabilizing solutes (solid) in moisture between the solid and liquid phases does not occur. On the other hand, a specific feature of the present invention is that the difference between moisture values of the heat-generating portion and the adhesive portion is 2% or less. Consequently, transfer of moisture (liquid) between the heat-generating body does not occur, and accordingly the heat-generating performance or the adhesive property of the adhesive portion is not deteriorated.

Additionally, it is asserted that it is totally improper to allege that one of ordinary skill would turn to a teaching in the food art in terms of making beef stew to achieve the recited difference between the critical moisture values between the heat generating portion and the adhesive portion of a heat generating body. Therefore, ordinary skill in the art would not be led to use the teaching of the Kaplow et al patent in a heat generating body of the type claimed.

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It must be emphasized in support of the patentability of the subject invention over the teachings of the cited patents is that the patents, especially the latter Kaplow et al patent, provide no suggestion to motivate one of ordinary skill in the art to combine its teachings in the manner proposed by the examiner. It is well established principle of U.S. patent practice that the prior art must contain some suggestion for combination since without such, any combination is pure speculation on the part of the examiner and is based on a prohibited hindsight reconstruction from applicants' own disclosure. In particular, it could be argued that the examiner has supplied the teaching deficiency using a prohibited hindsight reconstruction from applicants' own disclosure that the difference between the critical moisture values is 2% or less.

For the reasons stated above, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of claims 1, 2 and 5 over the cited patent publications are respectfully requested.

Dependent claim 2 has been rejected 35 USC § 103(a) as being unpatentable over the '479 patent to Usui in view of the patent to Donati et al further in view of the patent to Kaplow et al, and additionally in view of the patent to Ayers. Dependent claims 3 and 4 were rejected under 35 USC § 103(a) as being unpatentable over the same patents to Usui, Donati et al, Kaplow et al, and Ayers as above, further in view of the patent publication to Otsuka et al.

Reconsideration of these rejections in view of the above comments is respectfully requested.

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Inasmuch as both of these claims are dependent upon independent claim 1, it is submitted that the same consideration as were set forth above regarding the initial rejection are applicable to this rejection as well.

For the reasons stated above, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of claims 2-4 over the cited patent publications are respectfully requested.

In view of the foregoing, it is submitted that the subject application is now in condition for allowance and early notice to that effect is earnestly solicited.

In the event this paper is not timely filed, the undersigned hereby petitions for an appropriate extension of time. The fee for this extension may be charged to Deposit Account No. 01-2340, along with any other additional fees which may be required with respect to this paper.

Respectfully submitted,

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